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(Fig. 1) *Aloe variegata*

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Managing Editor, SCOTT E. HASELTON, Abbey San Encino, 6162 Pasadena Ave., Los Angeles, Calif.
Business and Advertising Manager, G. A. FRICK, 1800 Marengo St., Los Angeles, Calif.

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PRESIDENT'S COLUMN

Recently I received a fine shipment of cactus and other succulents from our esteemed member, Mr. Shiner of Laredo, Texas. I was expecting the shipment and so was not surprised to receive a notice from the express company saying they had received the package, but was surprised to receive in the next mail a notice from the Los Angeles County Horticultural Commissioner saying that because no proper Ozonium Root Rot Certificate accompanied the shipment it was being held and that unless I could produce a certificate signed by a Texas State Horticultural Commissioner stating that the plants came from a district that was free from Ozonium Root Rot the shipment must be returned or destroyed. This demand would cause a considerable delay and perhaps would be impossible to get a proper certificate, so I looked up the law to find a way out. I did find the way and will impart this information as it may save some one else a lot of trouble and perhaps the loss of their plants.

The law provides that the plants may be delivered without a certificate if all roots and soil be removed from the plants; the plants must be treated with a solution of vitrol. This I caused to be done without injury to the plants, and the shipment was released.

Of course, it would be much better if you are having any plants shipped to you to instruct the sender to procure the proper certificate regarding the Ozonium Root Rot, but if shipment does come without this don't let cutting off the roots worry you, for this seldom causes any harm.

The certificate must say that the plants came from a district that is free from Ozonium Root Rot. It is not sufficient to state that plants are free from Ozonium Root Rot.

Recently a very well written article on cacti by Mrs. Edna B. Trask of Pasadena was published in Sunset Magazine, in which she mentioned this Society. As a direct result of this article we have received about twenty-five requests for information about the Society, many of whom have joined. These inquiries came from various places in the U. S. A. and five at least from Mexico.

The Spring catalogue of Carl Purdy, Ukiah, Calif., is out showing many worth while succulents.

Mrs. G. Hellman, 995 North Figueroa Street, a member of our Society, has at this time several Plumeria trees in bloom, several hundred flowers at one time. The plant is a succulent with a milk sap; the flowers produce the perfume Frangipanni. The flowers are used in Honolulu for the wreaths with which they decorate tourists.

Courtesy Mr. Wm. Hertrich (app. x 0.1)
(Fig. 2) *Gastrolea x mortolensis*

GASTROLEA

By ERIC WALTHER

In two previous articles we have dealt with the more commonly cultivated species of *Aloe* and *Gasteria.*[1] It becomes necessary to say a few words about a number of plants grown in our local collections not properly assignable to either of the above-mentioned genera. As a matter of fact, they are hybrids between these genera, or bigeneric hybrids, as they are commonly termed. Formerly it was considered impossible to cross distinct genera; and even true species were at one time thought incapable of producing fertile offspring. This notion of course has had to be

[1]Journal Cactus & Succ. Soc., December, 1929 (*Aloe*), June 1930 (*Gasteria*).

abandoned long ago; and today we know of numerous bigeneric or even trigeneric hybrids. Such forms can hardly be placed into either parent-genus, partaking as they do more or less equally of the characters of both. It has hence become customary to coin new generic designations for such plants, usually by combining part of their parents' names, illustrated by such combinations as *Brassocattleya,* a well-known group of orchid-hybrids, or *Mahoberberis,* the latter a cross of *Mahonia* and *Berberis.*

Some doubt has been expressed about the propriety of according these garden forms the same taxonomic status as natural species and genera. Since hybrids, whether natural or man-made, are not necessarily recognizable as such off-hand, no sound reason seems to exist for treating these forms differently, just because they are hybrids. In so far as they are commonly grown and widely sold by commercial growers, they are certainly in need of names; and in any case the customary prefix x should be quite sufficient to distinguish them.

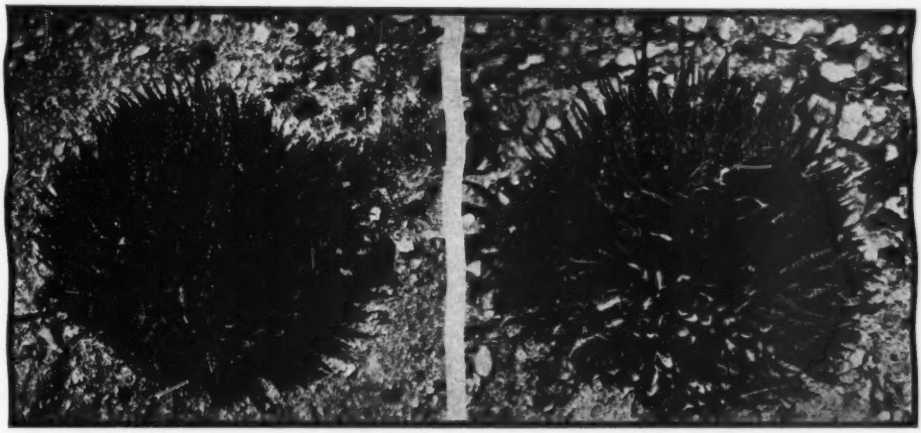
Hybridization is a most interesting subject full of unfathomed possibilities, potentially valuable to both science and horticulture. Its role in giving rise to new forms, species if you please, even in nature, is probably much more important than is generally realized. Only extensive field studies, careful breeding experiments, and perhaps cytological investigations may ultimately enable us to evaluate this factor correctly. At any rate, we feel fully justified in putting on record the hybrids discussed below, and assigning them to a new genus.

A majority of these hybrids on record, and all that are cultivated locally, were derived from either *Aloe variegata* or *A. aristata;* and a word about these seed-parents may not be out of order. *Aloe variegata* is a native of the South African Karroo, a region extremely rich in various kinds of Succulents. There its tenacity of life has earned it the Africander name of *Kanni-dood,"* meaning literally *"can not die."* We can testify to the justice of this appellation by citing from our own experience. Some years ago Dr. Pole-Evans of Pretoria sent us a plant of this by mail, which on arrival had to be returned to Washington for formal entry. After traveling bare-rooted all the way from Pretoria to Cape Town, to London, to New York, to San Francisco, back to Washington, and once more to San Francisco, the poor plant ultimately arrived here, still very much alive. Another name sometimes applied to this is "Partridge-breast Aloe," and has reference to the checkered leaves. Under favorable conditions this species spreads rapidly by underground runners which furnish a ready means of increase and account for its relative abundance in gardens. Seed is produced so rarely in cultivation as to lead to perhaps somewhat rash conclusions of self-sterility, but several instances of seed-production have come to the writer's notice where circumstances seem to preclude access of foreign pollen. The explanation may be found in the fact that most species of *Aloe* are proterandrous, i. e., their anthers mature and discharge the pollen before the stigma becomes receptive, a fact that makes emasculation unnecessary when hybridizing.

Seedlings grown from South African seed are usually quite uniform, but those from locally produced seed frequently contain variants clearly showing the influences of foreign pollen. An example of such seedlings of *A. variegata* is shown in photo No. 6, representing four plants segregated from normal ones grown by our friend Orpet. It would be futile to make any guess as to the pollen-parent of these seedlings, which might have been any one of the many Gasteria or Aloe-species comprising Mr. Orpet's large collection. Between the bees and humming-birds things are getting somewhat mixed in our gardens. A batch of seedlings grown by Mr. Orpet from seed received from La Mortola also contained a number of plants clearly intermediate between *Aloe* and *Gasteria.* One of these has flowered recently for the first time, the flowers agreeing with those of the other hybrids belonging to our new genus. For the present we shall refrain from naming or describing this particular hybrid, as the habit of perpetuating chance hybrids and dignifying them with Latin binomials is hardly to be encouraged, unless the plants possess real merit.

Proceeding to a detailed discussion of the known hybrids of our gardens we wish to urge caution against taking our names too seriously. The identification of these hybrids from the usually scant descriptions available is fraught with danger; and while it may be presumed that the plants in question were imported and actually correspond with the originals on record, they might just as well be of local origin, with perhaps the identical parents. We should be glad to hear from anyone qualified to set us aright, as Mr. Alwin Berger, for instance.

Two forms studied by the writer at the Huntington Botanic Gardens, one of which is illustrated in photo No. 2, agree sufficiently well with Berger's descriptions given under the names here adopted, i.e., *G. x mortolensis* and *G. x smaragdina.* A striking feature of the latter, not mentioned by Berger, is its habitual formation



(Fig. 3) *Aloe aristata*
Photo E. W. (app. x 0.25 Huntington Bot. Garden.

(Fig. 4) *Gastrolea x perfectior*
Photo E. W. (app. x 0.25 Huntington Bot. Garden.

of a rosette in the axil of the lowest floral bract. This rosette gradually increases in size, its weight gradually bending the peduncle down to the ground. This secondary rosette may even flower while still attached to the parent-plant, and still drawing most of its nourishment from the latter. Otherwise this hybrid is rather shy of producing offsets.

A third form, having *A. variegata* as one probable parent is here often called *Aloe nowotnyi,* but does not agree very well with the description of this given by Berger. To mention only one discrepancy, *A. nowotnyi* should have leaves 3.5 cm. (1½ inches) in length, as against a length for our plant of 10 inches or more. On page 301, Volume 6, of the Flora Capensis, Baker gives a description of *Gasteria pethamensis* which agrees so well with our plant that we are satisfied to use this name henceforth. As this was the first of these bigeneric hybrids to be recorded we make it the type of the new genus here proposed. Curiously enough, Berger fails to mention this entirely. The pollen-parent of this form seems to be in doubt, Baker accrediting it to *G. carinata,* while the Gardeners Chronicle, 1341, page 183, ascribes it to *G. verrucosa.*

These three hybrids are agreed in having rosettes to over 1 foot in diameter, with smooth or slightly warty, spotted leaves having finely denticulate margins. As a rule they flower rather freely, their branched inflorescences bearing tubular, scarcely inflated flowers that are reddish at the base shading to whitish above, the segments being lined with green.

The other two hybrids here treated are the off-spring, presumably, of *Aloe aristata,* which they resemble in the relatively small size of their rosettes and their smaller, more conspicuously tuberculate and denticulate leaves. *Aloe aristata,* their seed-parent, is rather rare in our collections, probably due to the fact that it is a shy seeder and makes no off-sets. In time the rosette will form a double head, careful division of which is the only means of propagation possible until a source of seed shall be found. Our photo No. 3 shows a plant of this species growing at the Huntington Botanic Gardens. Berger gives a long list of named hybrids attributed to *A. aristata,* but only two of these seem to be grown here. Both of them usually seem to go under the name of *Aloe beguinii,* but we are inclined to call the narrow-leaved form *G. x perfectior.* They seem to bloom only rarely, if at all, Berger making no mention of their flowers. Their descriptions otherwise are also very scant, so that we would welcome any further information from anyone knowing these hybrids from personal acquaintance, or from illustrations that may have escaped our notice.

Berger records several hybrids between *Gasteria* and *Aloe striata,* none of which seem to be known here. *Aloe heteracantha* also has been crossed with *Gasteria ensifolia,* of which hybrid we know nothing further.

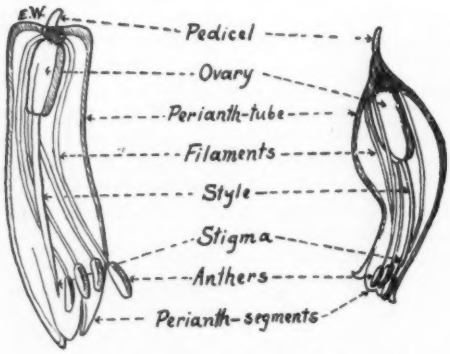
Culturally these plants require the same treatment as *Aloe* and *Gasteria,* preferring partial

(Fig. 5) *Gastrolea x pethamensis*
Photo E. W. In Orpet's collection.

(Fig. 6) *Seedilngs of Aloe variegata*

shade and somewhat more moisture than will suffice desert-cacti. They may be increased by means of off-sets or by rooting leaf-cuttings, which last should be detached with the basal sheath intact.

In conclusion we give a provisional definition of the generic characters, which are of course subject to modification as further flowering material comes to hand. A key to the commonly grown forms follows, as well as a list of the several consequent new combinations.



(Left)—*Aloe-flower in longitudinal section*
(Right)—*Gasteria-flower in longitudinal section*

GASTROLEA. New Genus. (*²)

Generic Definition:

Plants all hybrids of *Aloe* and *Gasteria,* the Aloe-species mostly concerned being *A. variegata, A. aristata* and *A. striata;*

Rosettes spiral, mostly caespitose, stemless or nearly so;

Leaves variously spotted or tuberculate, cartilagineous-denticulate, usually trigonous or keeled on back;

Inflorescence lateral, simple or branched, laxly racemose;

Flowers stalked, nodding or spreading;

Pedicels slender, elongated;

Bracts scarious, about as long as pedicels;

Perianth slightly or not swollen at base, often more or less recurved above the middle, reddish at base, greenish towards apex;

Segments often much longer than the tube, at tip spreading or recurved;

Stamens and style scarcely protruding;

Fruit not seen.

Type-species: G. x pethamensis (Baker) E. Walther.

Differences between the parent-genera and these hybrids:

Gasteria has a perianth with usually much inflated tube longer than the perianth-segments, whereas the hybrids, as far as observed in flower, have a scarcely inflated perianth with segments much longer than perianth-tube;

Aloe usually has prominently toothed leaves; exceptions from this rule are the commonly grown *A. striata* and *A. variegata,* of which the latter differs as indicated in the following key, while true *A. striata* never has blotched leaves.

(*²) : : *Gastrolea* : : derived from *Gasteria* and *Aloe,* dropping or rearranging some of the letters for the sake of euphony.

GASTROLEA. Key to the forms here treated:

A Leaves quite smooth except at edges, spots immersed.
  B Leaves in three spiral ranks . . . . . (*A. variegata* L.)
  BB Leaves in spirally many-ranked rosettes.
    C Lvs. to over 3″ wide at base, purplish-green, with marginal teeth few and remote, and blotches transversely confluent; basal offsets or none . . . *G. x smaragdina.*
    CC Lvs. less than 2″ wide at base, pale-green, marginal teeth many, crowded, spots longitudinally confluent; basal offsets numerous . . . . . *G. x mortolensis.*
AA Lvs. with tubercles more or less prominent, i.e., warts protruding on surface as well as at edges.
  B Lvs. ending in long awn or bristle at apex; rosettes without basal offsets, but ultimately dichotomously dividing . . . . . (*A. aristata* Haw.)
  BB Lvs shortly pointed; rosettes copiously proliferous.
    C Lvs. 8 to 12″ long, 1½ to 2″ wide at base . . . . . *G. x pethamensis.*
    CC Lvs. 3 to 4″ long, rarely over 1″ wide at base.
      D Lvs. with superficial tubercles blunt, marginal teeth acute . . . . *G. x beguinii.*
      DD Lvs. with tubercles of surfaces sharply pointed as well as the marginal ones . . . . . *G. x perfectior.*

List of species; with new combinations.

* = grown locally.

— *x bedinghausii* (Radl.) **new comb.**; Radl. in Mon. f. Kakt., 1896:24; Berger, Pflanzenreich, 178. (Said to be cross between *A. aristata* and *G. nigricans.*)

*— *x beguinii* (Radl.) **new comb.**; Radl. in Mon. f. Kakt., l. c.; Berger, l. c., 177. (Raised by Abbe Beguin, parentage uncertain.)

— *x chludowii* (Beguin) **new comb.**; Mon. f. Kakt., 1896:24; Berger, l. c., 178. (Grown by Abbe Beguin, with *G. verrucosa* as one parent.)

— *x derbetzii* (Hort., Berger) **new comb.**; Rev. Hort., 1894:147; Berger, l. c., 198. (Cross of *A. striata* and *G. acinacifolia.*)

— *x imbricata* (Berger) **new comb.**; Berger in Wien. Ill. Gztg., 1893:194; l. c., 192. (Perhaps hybrid of *A. variegata* or *A. serrulata* with *Gasteria sp.*)

— *x lynchii* (Baker) **new comb.**; Baker, Gard. Chron., 1881:15:266; do., 1901:29:199, fig. 76; Berger, l. c., 198. (Raised by Irwyn Lynch at Cambridge from *A. striata* and *G. verrucosa.*)

*— *x mortolensis* (Berger) **new comb.**; Berger, l. c., 191. (Perhaps *A. variegata* and *G. acinaciformis.*)

— *x nowotnyi* (Radl.) **new comb.**; Mon. f. Kakt., 1896:27; Berger, l. c., 178. (Perhaps *A. aristata* and *G. nigricans.*)

— *x peacockii* (Baker) **new comb.**; Baker, Jour. Linn. Soc., 18:195, as *Gasteria;* (*Aloe heteracantha* and *G. acinacifolia* var. *ensifolia;* not to be confounded with *Aloe peacockii* Berger, which is a form of *Aloe abyssinica.*)

*— *x perfectior* (Berger) **new comb.**; Radl., in Mon. f. Kakt., 1896:24; Berger l. c., 177. *A. aristata* and *G. verrucosa.*)

*— *x pethamensis* (Baker) **new comb.**; Baker, Journ. Linn. Soc., 18:194; do, in Flora Capensis, 6: 301; Gard. Chron., 1841:183. (Hybrid originated by Mr. Rickets, gardener for Mr. W. H. Baldock, Petham, from *A. variegata* pollinated by either *G. carinata* or *G. verrucosa;* type of the new genus.)

— *x prorumpens* (Berger) **new comb.**; Berger, l. c., 177. (Raised by Abbe Beguin; parents not given.)

— *x quehlii* (Radl.) **new comb.**; Radl., Mon. f. Kakt., 1896:27; Berger, l. c., 178. (Distributed by Haage & Schmidt, origin not stated.)

*— *x smaragdina* (Berger) **new comb.**; Berger, l. c., 190. (Perhaps *A. variegata* and *G. candicans.*)

— *x rebutii* (Berger) **new comb.**; Berger, l. c., 191. (*A. variegata* and *Gasteria sp.* of Sect. *Parviflorae.*)

Literature, etc.:

Baker, J. G. . . . see Journ. Linn. Soc., Gard. Chron., Flora Capensis.

Berger, Alwin . . . see Pflanzenreich, Wien. Ill. Gztg.

Flora Capensis. By Harvey & Sonder, etc. (J. G. Baker) Vol. 6.

Gardeners Chronicle, The: London (J. G. Baker) 1841.

Journ. Linn. Soc. : : Journal of the Linnean Society, London (J. G. Baker).

Mon. f. Kakt. : : Monatsschrift fur Kakteenkunde, Berlin. (Radl.)

Pflanzenreich, Das. : : By a Engler. Vol. 4:38:3:2. Liliaceae-Asphodeloideae-Aloineae; by Alwin Berger, Leipzig, 1908. (In Latin.) The most important source.

Revue Horticole. : : Paris, 1894.

Wien. Ill. Gtzg. : : Wiener Illustrierte Gartenzeitung, 1893. (A. Berger.)

A NEW CACTUS PARASITE

About two years ago I found what appeared to be a tiny plant growing on a specimen of *Echinocereus chloranthus.* I sent it to the Desert Laboratory, Tucson, Arizona. Mr. Forest Shreve pronounced it a new discovery. Up to that time no plant parasite had ever been found on a cactus. The plant consisted of a few wiry stems about half an inch long, tipped with a tiny star-shaped flower. The specimen was collected in the near vicinity of El Paso, so it is reasonable to suppose that others must exist there. Now is a good time for our Texas friends to make a special effort to rediscover it. If any should be found, please send them to me or to Mr. Shreve.

W. O. BEECROFT,
Escondido, Calif.

I cannot quite understand Mr. Beecroft when he says "up to that time no plant parasite had ever been found on a cactus." In my collection there are many plants parasitic on the Cacti. Mostly algae, and in South America some of the *Trichocerei* are literally covered with the brilliant scarlet Loranthus.

HOUGHTON.

"The Cacti of Cuzco"

Reviewed by N. L. BRITTON

Dr. Fortunato L. Herrera, Rector of the University of Cuzco, has recently published a valuable annotated list of the Flora of this Andean province of Peru, recording his collections and observations.[1] From Algae, through the Vegetable Kingdom to Carduaceae, 732 species are included, and of these 25 have been published by authors as new to Science. The records include citations of geographic distribution, and of altitudinal range, reaching up to 3,700 meters (over 12,000 feet); the Peruvian names of the plants are given. There is an interesting historical review of the work of other botanists and explorers in the region, including the visit of Dr. Rose in 1914 for the study of Cacti. Of these there are twelve species and seven of them are illustrated from photographs.

1. *Opuntia brasiliensis* (Willd.) Haw.
2. *Opuntia exaltata* Berger (illustrated).
3. *Opuntia floccosa* Salm-Dyck (illustrated).
4. *Opuntia pascoensis* Britton & Rose (illustrated).
5. *Opuntia Soehrensii* Britton & Rose.
6. *Opuntia tunicata* (Lehmann) Link & Otto.
7. *Cereus Trigonodendron* Schumann (illustrated).
8. *Trichocereus cuzcoensis* Britton & Rose (illustrated).
9. *Erdisia squarrosa* (Vaupel) Britton & Rose.
10. *Epiphyllum Phyllanthus* (L.) Haw.
11. *Lobivia corbula* (Herrera) Britton & Rose (illustrated).
12. *Rhipsalis Cassutha* Gaertn. (illustrated).

[1]Plantarum Cuzcorum Herrerarianum. Estudios sobre la Flora del Departamento del Cuzco. Small 8 vol., pp. 257, illustrated. Lima, 1930.

ROCK GARDENS AND ALPINE PLANTS

Reviewed by ARTHUR D. HOUGHTON

The first chapter of Henry Correvon's book "Rock Gardens and Alpine Plants" is so fascinating with its pure optimism and garden philosophy that I shall re-read it again and again. The intimacy of it brings one close to the sages of horticulture. As a boy it was my pleasure to see and know some of these great gardeners. I shall never forget my visits to Sir John Lubbock's at High Elms, in Kent, England; nor the influence on my life Sir John's books brought to me.

Mr. Correvon's is the best book on Alpines that has yet been published.

His chapter on "Hardy Cacti" is excellent. Five *Mammillarias* are listed among the hardy cacti. The cacti misnamed *Mammillaria* mostly belong to the genera *Neomammillaria* and *Coryphantha*. The name *Mammillaria* does not belong to the cacti at all. There is a perfectly good genus *Mammillaria* in the Algae, a name nearly one hundred years older than the improperly named cactus genus.

Used as we are to the Britton and Rose nomenclature, the names Mr. Correvon uses would need some revision for American readers. The hardy list could be much extended, if he had taken account of many of the beautiful hardy mountain cacti of Mexico, and of the species of the Andes and Cordilleras of South America, some of which extend even into Patagonia

The Macmillan Company has certainly turned out so alluring a book that I am afraid my garden work will suffer until my appetite for it is satisfied.

No person with even the smallest rock garden should deny himself the thrill of Correvon's book.

EDITORIAL

The Journal takes this opportunity to thank its many new subscribers for their support so unexpectedly increased during the summer months, and at the same time explain to those who have not renewed their subscriptions (probably through neglect) their failure to receive subsequent numbers.

The policy of the Journal has been to discontinue sending further numbers as soon as the subscription has run out, for two reasons. One is economy. Like good housekeepers we try to be thrifty and watch the waste.

The second reason is dictated by the United States Government. The Postal laws are very explicit concerning the continued mailing of printed matter, subscription to which has lapsed, and the publisher is held responsible.

Several articles about cacti and allied families have come to us from various pens in various lands, which will be used in ensuing numbers. The personal touch, experience and experiments bring our members closer together. Those who specialize in certain families can be of amazing assistance to the amateur and a source of interest and argument to his peer, if out of the fulness of knowledge the typewriter speaks. There are shining examples of this in every issue, where scientists, botanists and research workers have taken time out of their busy lives to enlighten readers of the Journal. May their tribe increase!

M. N. L.

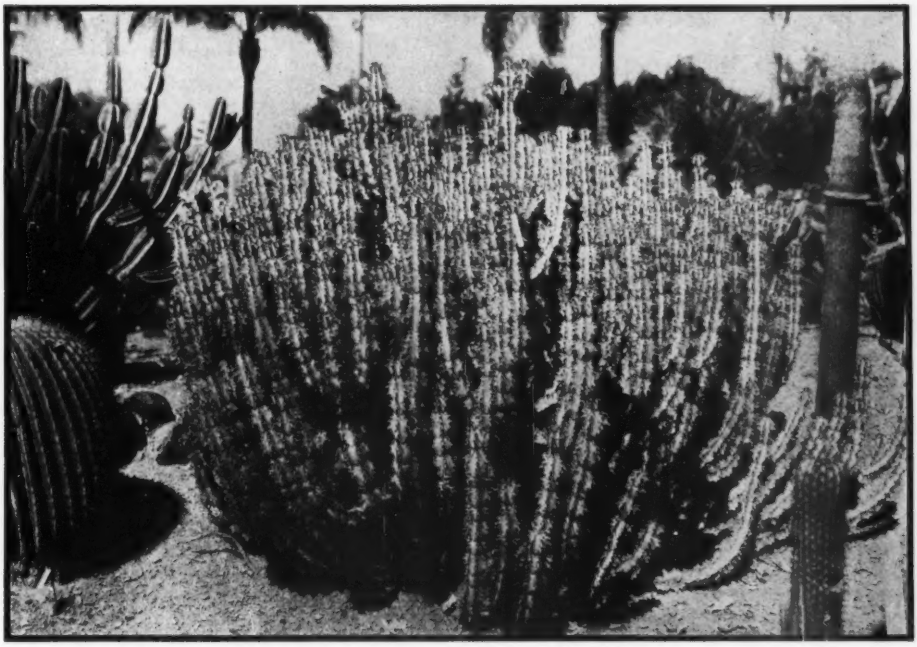


Photo by Mr. Wm. Hertrich

EUPHORBIA COERULESCENS

By G. A. FRICK

Euphorbia coerulescens Haw. (section Polygonae) is a species somewhat similar in its habit and appearance to the very poisonous *Euphorbia virosa Wild,* of the Fishriver Valley district of Great Namaqualand, South Africa, the latter is insufficiently known to make correct comparison with *E. coerulescens,* but a discription of this plant in Patterson's "Narrative of Four Journeys into the Country of the Hottentots," Page 62, convinces us that, *E. virosa* is not just a synonym of *E. coerulescens.* Patterson describes this plant as follows: "A succulent spiny leafless bush formed of a clump of erect stems 5 to 7 (or at times up to 15 feet) high and two to three inches in diameter, simple or sparingly branched at the upper part, five to seven angled, constricted at intervals of one and one-half to three inches so that the angles appear to be broadly scolloped, green, with a bluish tint, probably glaucous; angles not spirally twisted, separated by concave channels about three-fourths of an inch deep, slightly sinuate-toothed, with a continuous horny margin one and one-half to two lin broad; spines in pair ¼ to ½ inch apart, two to six lin. long, stout, widely diverging, straight or slightly curved, brownish grey with darker tips; leaves rudimentary, transverse, about ½ lin. long and two lin. broad, truncate, soon deciduous; flowering eyes seeded two to three lin. above the spine pairs and nearer the pair of spines above than below them on the specimens seen; flowers not seen." Plants seen by Patterson were in the Western region, Little Namaqualand, near the Orange River, precise locality not given.

N. E. Brown in his monograph "Euphorbiaceae" page 367 states, "*E. virosa* is at present most imperfectly known, as the only specimen I have seen that I think must belong to it, is a fragment about two inches long from the top of the stem, without flowers, collected at Viols Drift, which lies to the west of the locality where Patterson found it."

Dr. Rudolph Marloth, collected *E. virosa* at Tsarras, in Great Namaqualand, and from the photograph of the plant it seems to agree with

Patterson's description. In his latest contribution, the second volume of the "Flora of South Africa" there is a half page illustration of *E. virosa* growing in its native habitat, which shows it to be a different plant from that which Berger describes in the "Sukkulente Euphorbien" as *E. virosa.*

Dr. H. von Poellnitz of the German Kakteen Gesellschaft, an authority on Euphorbia plants; in making his corrections of the Berger Monograph, in Zeitschrift Fur Sukkulentenkunde, Vol. III, No. 9, states that the description of *E. virosa* and the cut illustrating same on page 80, belongs to *E. coerulescens* and does not agree with *E. virosa Wild.* Consequently, all plants labeled *E. virosa* in the United States (and there are many of them), should all be corrected to read *E. coerulescens,* there being no *E. virosa* extant here.

E. coerulescens, Haw., in Philadelphia Magazine, 1826, is also described as a succulent spiny leafless bush, three to five feet high, branching throughout; branches in clusters or somewhat whorled, spreading two to three inches thick, constricted into rounded oblong or elongated segments, one and one-half to three inches long, four to five and occasionally six angled with slightly concave sides, dark green more or less glaucous, especially on the younger growth; angles sinuate-toothed, with continuous or occasionally interrupted horny and at first pale brown margins, finally turning grey; spines ¼ to ½ inch long, in pairs, rather stout, dark brown; spines take the form of small hard persistent auricales; seated one on each side of the leaf scar, or base of the leaf.

You will note in the above description, *E. coerulescens* is described as being leafless, but this is not strictly correct, and is perhaps meant to apply to the general appearance of the plant, for during the growing season, leaves are present on the new shoots, but they are often so rudimentary and inconspicuous as not to be noticeable, and are soon deciduous.

The first plants were introduced into cultivation by Bowie in 1823, sent to Kew Gardens, and probably most of the specimens of it cultivated elsewhere for many years after this date, were derived from cuttings of these original plants.

Flowers in June and July in Southern California, are a bright canary yellow, less than ¼ inch in diameter, and extend along the rib from the apex to ten or twelve inches below. The flower in itself is quite insignificant, but when the entire plant is in bloom it is a wonderful sight to look upon.

Seed pods are about the size of a pea, somewhat triangular in shape, light brown in color and very smooth, ripen in August and September, and when ready for sowing seed traps should be set to catch them. Gratifying results may be looked forward to as fully 95% of the seed of this plant has germinated with me, but you must catch them, as *E. coerulescens* seems to have a greater force back of the seed pod explosion than any of the Euphorbia. The writer has been struck in the face with the shooting seed of this plant while standing fully eight feet from its location. A real hot day is the one selected by it for target practice.

Many collectors inform me that they have a difficult time starting *E. coerulescens* from cuttings, so I will give a few cultural hints that will be of value to those wishing to establish new plants. Propagation is not difficult from separated joints when properly removed from the stock plant. Never use a knife, as the woody skeleton or core can not be cut with the sharpest knife without tearing and chewing the core of the stem, thus placing the cutting in a condition that reduces its chances of surviving this treatment. A clean cut is essential for them to strike roots quickly, and for this purpose use a carpenter's coping saw. They are inexpensive and are ideal and safe for removing cuttings from most species of Euphorbia.

E. coerulescens grows most vigorously in low scattered patches or groups, as far as the eye can see, in the Uitenhage district of South Africa, where the rainfall is irregular and uncertain. Many birds and small animals live in these colonies for the shelter and protection the plant affords.

Viscum crassulae a parasite somewhat similar to the mistletoe growing on our trees, finds *E. coerulescens* a genial host; in the Flora of South Africa. Dr. Marloth shows a picture of a stem with this parasite growing on it. An attempt at importing seed of *V. crassulae* is being made; and three rooted cuttings of *coerulescens* are waiting for the arrival of same, when an incision will be made on the apex of each plant and a seed of this parasite inserted, hoping propagation will take place.

Look for the results of this experiment in some future issue of the Journal.

It is a pleasure to note that Mr. McCabe of San Diego and Dr. Houghton of San Fernando are leaders in propagating their stock of Cacti and Succulents, as distinguished from the marauders of our deserts. Let us patronize those encouraging conservation.

—Courtesy Touring Topics

A Scene in Lower California

PERESKIOPSIS OF BAJA CALIFORNIA, MEXICO

By HOWARD E. GATES

In Lower California the Cactus Collector gets but little assistance from the native residents, as they have paid very little attention to the different species. To them the cacti are the same as weeds in our gardens,—just something to say bad things about. For this reason I struck out blindly from La Paz in any direction there appeared to be a road, not knowing what I would encounter, but always sure each day would bring forth something interesting. One of these trips took me off on the Tepetates road toward the west coast. After fifteen or twenty miles of laboring going I reached the hilly, brush covered crest of the narrow divide between the Gulf of California and the Pacific. About this time I decided this was no road for a truck to travel and turned around.

It is always well to stop occasionally and scout around through the brush to see what one can find. During one of these pauses my attention was drawn to some rose-colored fruit in a small tree. This called for investigation and proved interesting; for this fruit was on a climbing cactus, the first I had found. The plant started from the ground with a hard, woody stem less than an inch in diameter. As the stem rose in the tree, other woody, jointless branches led off in various directions and they in turn had many short, jointed branches of a more succulent nature. On the old gray, scaly bark of the main branches, there were few spines, but it was another story with the younger growth. There were several short bristles to each of the circular areoles and only one spine to the areole, but this sheathed and barbed spine of a little more than an inch in length, more than made up for its lack of numbers in sharpness and tenacity of grip.

I was not fortunate enough to see this species in flower, but there were a few ripe fruits. These were a deep rose pink in color, three-fourths of an inch in length by one-half that in diameter, obovoid, with a flattened blossom end, brown felted areoles with one or more short spines to the areole. I opened every fruit I could find, but I never saw a seed. It appeared as though the seed had been absorbed. However, from the blossom end there were often from one to three short branches growing from the fruit itself.

My notes, copied from Britton and Rose, did not give the description of anything resembling this, but further study has convinced me it is a *Pereskiopsis*. Only a few plants of this were discovered in one small locality.

A whole morning was spent in the delightful company of an American mining man, exploring the canyon at San Antonio, south of La Paz. He was the first to point out to me what the natives call Alcagary, (Al-ka-hairy). It was growing up through some small trees. A few days later at Miraflores, towards San Jose del Cabo, I found it again, growing plentifully down on the bottom land next the river in a locality that would have been full of willows and swamp plants in a moister climate. The description of this was in my notes, but I failed to recognize it, as the description in Britton and Rose starts off as follows: "Stems, stout, woody, branching, 6 to 12 decimeters high." All I found were vines and here along this river they climbed over the trees to a height of fifteen feet. In spite of my failure to identify it I made my notes and later found them to agree with the published description except as to height and vining characteristics, as the genus description as published, says, "Trees and shrubs in habit and foliage."

The trunk and principal branches were woody and scaly barked, with few spines, while the younger branches were green, tender and plentifully spined. The older branches were not jointed, but the younger ones had many short, jointed branches that were easily detached.

This plant varied from the preceding in that the former was single spined and sheathed, while this one had from one to eight long spines to the areole and these were sheathless. I did not find the flowers of this species, which the natives say are yellow, but there was considerable ripe fruit. This fruit was very handsome, being two and a half inches long, slender, the areoles being filled with white wool and a number of reddish brown bristles about a half an inch long, blending richly with the deep orange color of the skin. The fruit was easily detached and as I knocked it into a bucket, the bristles fell down over my clothes in a shower. So intent was I on the task, I did not realize what I was doing to myself, until I started back to camp, when those bristles scattered through my clothes felt like horse nettles and for a week afterward I was busy opening tiny pustules and digging out spines. The fruit had seed resembling tomato seed in that they were flat and covered with short wool. Judging from the number of small seedling plants growing beneath the larger plants they germinate freely.

An interesting feature of this latter species were the numerous, thin, flat, pointed, stemless leaves, about a half inch wide by one inch long growing on the younger wood.

Both of these plants appeared to be too hard wooded to stand the long slow journey to California, but to my surprise, specimens of each lived through and are now growing in three California collections.

Agave virginica

By BELDEN C. SAUER

Southern Ohio is practically without native succulents. True, *Sedum ternatum* (Michx.) its variety *minor* (Praeger) and *S. telephoides* (Michx) along with *Opuntia rafinesquii* (Eng.) and *vulgaris* (Mill) doubtfully true natives here, are present; but it is on *Agave virginica* L.[1] that our claim to having succulents rests.

This plant, *Agave virginica,* is nothing wonderful in appearance when contrasted with the southern and western representatives of this genus; but the very fact that it can endure temperature of —25° F. quite well and doubtlessly in the past has endured even more severe cold than that gives it a place in the heart of northern succulent growers. Its near cousin *Agave utahensis* (Eng.) in some varieties at least, can endure sub-zero temperatures but it is very doubtful if it can stand as much as *A. virginica.*

The published range of *A. virginica* is Maryland and Virginia to Florida, west to Southern Ohio, Southern Indiana, Missouri and Texas. This range is rather wide but not at all a continuous one. The Southern Ohio plants, for instance, are a restricted colony isolated on all sides by at least 75 miles from their nearest relatives. They appear in a series of Oak Openings on an upper Silurian-Lower Devonian Dolomitic limestone. They are probably a remnant of the flora that covered the northeast during the hot dry era following the recession of the last glaciers as expounded in the Xerothermic Theories.

I have in my garden the Ohio form and a form from Arkansas. They are very different in character, the former being smaller in all parts, less floriferous, and having the leaves much less serrate and nearly without the purple blotches of the latter. I do not doubt that it is two such forms as these that are grown throughout Europe as *A. virginica* and *A. utahensis,* the true *A. utahensis* being seemingly unknown there, even in the best collections.

The difference in these forms, due to the isolation of the Ohio plants, is sufficient I believe

[1]Syn. *Manfreda virginica* Salish.

to warrant its being recognized as *Agave virginica* var. *Obioensis*. To substantiate this claim further material, especially from the east, in Maryland, Kentucky, etc., would have to be studied, but this seems to be unobtainable at the present time.

As a garden plant *Agave virginica* deserves a place in every well considered garden, especially those in the colder portions of the country. The plant is easy to grow; any soil that is not soggy seems to suit it quite well. When once established it can be relied on to produce flowers, seed, and to increase every year. On a still summer evening the fragrance given off by its insignificant olive-brown flowers, borne aloft on their seven-foot stems, will rival even the famous *Lilium regale*. As a curiosity for the northern hardy border the Virginia Century Plant has no equal.

THE CACTUS CRANK

Written for Geo. B. Shaffer

Who is it that's up in the early morn?
Before the light of day is born?
Who starts away in his trusty Ford?
When other men would be sorely bored?
The cactus crank.

Who when he reaches the desert land?
Takes his spade and pick in hand?
Trudges along when the sun is hot?
No friendly breeze and the shade is not?
The cactus crank.

Who mops the sweat from his dripping brow?
As he cuts the sand like a young snow plow?
Stopping now and again to find?
Some prickly plant of a valued kind?
The cactus crank.

Who it is goes 'til the shades of night?
Hide the domes from his very sight?
Bows his back 'neath his heavy load?
Mushes along where there is no road?
The cactus crank.

Who is it that walks 'til his feet are sore?
His boots so worn that they are no more?
Scans the country with eagle eye?
Climbing rugged hills so high?
The cactus crank.

Who is it with smiles on his tired face?
Takes his seat in the same old place?
Noses his Ford toward the homward track?
With an acre of stickers he's taking back?
The cactus crank.

Then puts himself in a clean white bed?
After a bath and his prayers are said?
In Morpheus' arms to dream and snore?
But his wife won't care, for he's home once more?
The cactus crank.

JANE BERRY KOSHT.

South Africa's Haworthias

By D. VAN DER BYL

The Glen, Great Brak River,
Cape Province, South Africa.

Being very interested in your delightful Journal, I read it from cover to cover, and was much intrigued by Mr. West's article on "Windows and Eyes" in the March number, especially the paragraphs on window Haworthias in which he asks if some one in South Africa would give some information about their native habitat. I can give a little. I am always on the lookout for Haworthias and have come across many. They are often very difficult to find, as they lie so close to the ground.

I have noticed that *H. arachnoides* is a great drought resister, and even after a very dry spell will be found as fresh and succulent as at any other time. I have also found it in the open and under bushes; or wedged in between rocks in the burning sun; again, on rocks in places where the sun never shines.

H. pilifera grows in the open and is one of the real "window" Haworthias. *H. margaretifera* loves being in masses on the open hillsides here at the Coast, and it is much smoother than the ones found at Matjesfontein in the Karroo. The Karroo one is covered with very rough "pearls," which are pure white. I am growing the two side by side here and will watch with interest whether these "pearls" become less pronounced at the Coast. Here they are seldom found in actual shade.

H. viscosa is a great sun lover and stands on stoney Kopjies in the hottest parts. *H. subattenuata* grows on the hillsides near the sea, as does *H. retusa*. Neither seems to look especially for shade, and both are difficult to find. *H. attenuata* is also to be found in the full sun on rocky ground. I often wonder whether the fact of Haworthias being secreted under bushes is not due to the leaf mould generally found there, rather than that they love the shade.

Another window plant we have on the Karroo is *Bulbine mesembrianthemoides*. It comes out only after heavy rains and is a pale green transparent watery plant with one or two leaves that stand out about an inch above ground in the Kopjies in hard gravel. The flowers are on a little spike about three or four inches long and are pale yellow. Children on the Karroo are fond of looking for them and sucking out the little wa-

ter pocket. They call them "Water oogies."

Another curious plant we have here, near the sea, too, is *Briivia haworthioides.* Generally the whole plant is under ground and looks like a Haworthia. Then it flowers and later a little tuft of very green leaves comes out. Quite impossible to find unless it is in flower or seed as I found it.

I am having a snap of a few crests on a *Stapelia* and will send one on. I have never seen one on a stapelia before. Some years ago I had two beautiful *Euphorbia crassipes,* all the joints being crested, but they died after being on the rockery a few years. I also have an amazing crest on an *Aloe arborescens* growing in the sand quite close to the sea. What causes them? No one as yet has seemed to give the right answer for all the crests every time.

[Editor's note: The members of this Society hope this will not be Mr. Van der Byl's only contribution. South Africa, despite airplane mails and steamships, is still far enough away to be a land of conjecture and diamonds. Let us hear more at first hand of its flora.—M. N. L.]

"BUTTON CACTUS"

By ANA VOSS, *Cleveland, Ohio*

Epithelantha micromeris, commonly called the "button cactus" because of its general appearance, is to be found in nearly every collection. The accompanying illustration is the natural size, but when grown singly instead of in clusters, becomes much larger. A few in the writer's collection have attained the size of an orange, while crestate forms are occasionally eight inches wide and six inches high.

This dainty little cactus bears a fruit that is edible and has a tart taste or slightly acid. The fruit is greatly relished by the Mexicans who call them "chilitos." The red seed pods, set in a background of the soft white network of spines that cover the entire plant, make this one of the most showy cacti in any collection. This plant has a peculiar habit that after several years of hothouse growth all the spines drop off leaving it entirely nude, resembling a potato in appearance.

The flowers are a flesh colored white, and are about ¼ inch in diameter with 8 to 10 petals.

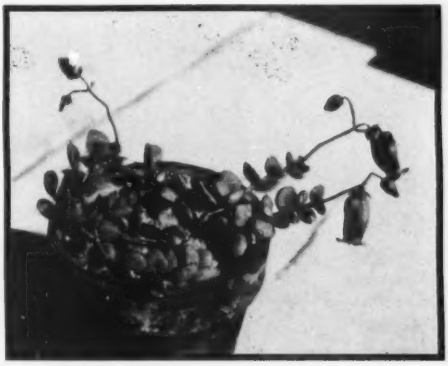
For many years this plant has been known as a *Mammillaria,* but Dr. Rose has placed it in the genus *Epithelantha,* as it is distinctly different in that the flowers come from the new growth instead of the old, as does the *Mammillaria.*

DESCRIPTION: Plants small, simple or caespitose, nearly globular, but depressed at the apex, 6 cm. in diameter or less; tubercles very low, small, arranged in many spirals, 1 mm. long; spines numerous, white, the lower radials about 2 mm. long, the upper radials on the young tubercles 6 to 8 mm. long and connivent over the apex, narrowly clavate, the upper half finally falling off; flowers from near the center of the plant in a tuft of wool and spines, flower very small, whitish to light pink, 6 mm. broad, perianth-segments, 8 to 10; stamens, 10 to 15; stigma-lobes, 3; fruit, 8 to 10 mm. long; seed, 1.5 mm. broad.

A RARE BRYOPHYLLUM

JAMES WEST, San Rafael

Except for the few common species, the genus *Bryophyllum* is seldom well represented in collections. Recent intensive explorations in the island of Madagascar have brought to light a large number of extremely interesting *Crassulaceae* belonging to the genera *Bryophyllum, Kalanchoe* and *Kitchingia.* In the nomenclature of the French botanists who have treated this flora, most of the species have been included in the genus *Kalanchoe,* and as far as they are in cultivation here, will be found thus named in collections. However, Berger in his latest treatment has retained the genera *Bryophyllum* and *Kitchingia,* and we will follow him here.



The plant here figured is *Bryophyllum uniflorum* Berg. (*Kitchingia uniflora* Stapf; *Kalanchoe uniflora* R. Hamet). It was for the first time publicly exhibited at this year's Cactus Show, and won for its owner, Miss Kate Sissions, a well-deserved prize.

B. uniflorum is one of the few species of its genus of trailing, stem-rooting habit, somewhat in the fashion of *Crassula perfossa* and similar plants. This habit, in combination with its large red flowers should make it a prominent rock garden subject, except that it has already acquired a reputation of being difficult to grow. (Perhaps Miss Sessions will sometime divulge the secret of growing so good-looking a plant as hers.) The small (½ in.) leaves are opposite, almost sessile along the slender stems, obovate-orbicular with about 3 indistinct teeth, rather thick, grey-green with reddish margins. The flowers are borne singly or in threes on thread-like pedicels at the ends of the branches; they are quite large for the size of the plant, nodding, urn-shaped, the free tips sharply reflexed deep wine-red in color. As in all the species, the segments are 4, the stamens 8. As this species has been described both as a *Kalanchoe* and a *Kitchingia,* it may be well to detail the distinctions between these closely related genera of the Crassula family. In *Bryophyllum* the filaments are inserted at the base of the corollo-tube, the flowers are large, usually pendent or nodding, with large, sometimes united sepals. Vegetative buds at the margins or ends of the leaves are nearly always present. In the other two genera the filaments are inserted at the middle or higher up on the tube, the distinction between *Kitchingia* and *Kalanchoe* being that the former has spreading carpels, long styles, inflated-campanulate corolla, nodding flowers, while *Kalanchoe* has inflexed carpels, shorter styles, variously-shaped but usually erect corolla.

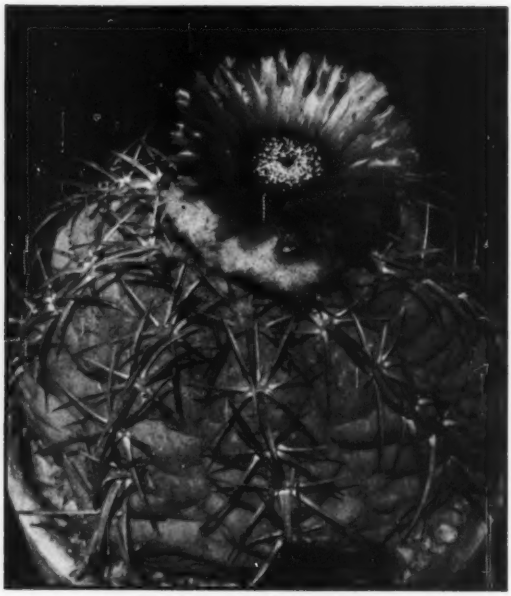
Bryophyllum has about 20 species, all natives of Madagascar, though *B. calycinum* is widely distributed elsewhere in the tropics. The Kitchingias are also endemic in that island, where also a large proportion of the Kalanchoes are at home.

A number of most interesting species of all three genera have recently come into cultivation in California through the agency of the U.S. Government, and we hope in time to deal with more of them in these pages.

They have not been grown long enough here to make sure, but one would not expect these tropical island-dwellers to be very hardy, except possibly some of the montane species, such as *Kitchingia peltata* Baker, which grows on shady cliffs at 2400 feet.

A CORRECTION

We regret the glaring typographical error in Mr. Baxter's excellent article on page 283. The caption for the illustration should have read "Pachycereus pringlei (on right). Lemaireocereus thurberi is on right. We will endeavor to prevent such errors on the future series of articles which Mr. Baxter is preparing.



Echinocactus Horizonthalonius Nigger Head Cactus

ECHINOCACTUS HORIZONTHALONIUS

By HELEN MCCABE

Here we have a plant of one of the numerous *Echinocactus* species, whose shape is of a beautiful gray color, and the peculiar arrangement of the horn-like spines on its thick ridges, make it a very desirable plant to add to any collection of Cacti.

It is said to be an easy plant to grow; but my experience with it has proved the contrary, and until one understands just how it is very difficult to establish. I have tried seven different specimens, receiving them all at different times, some in early spring, others later on, until midsummer. The plants, when received (by mail), were all apparently in good condition, with the exception that the roots were broken; on some of the larger roots the bark was completely stripped off. I cut these broken and stripped roots away, leaving only the small and uninjured roots.

The first was a plant about eight inches high and six inches in diameter. I received this early in March, planted it in very sandy soil, watering it well, so as to get the soil well settled about the roots and base of the plant. I know now this was the very thing that killed that specimen, for in two weeks it turned black and died. My next trial was with one about half as large as the first plant, and I did not let water touch it, and it went as did the first. I tried another in clean sand kept in my glass house; did not water sand or plant, and this one dried up. And so it went, all my efforts with this particular variety proved failures.

I wrote the party in New Mexico, as to the nature of the soil in which they grew and the answer was, very gravelly soil with considerable limestone around. Then I tried six more plants in gravel and old mortar I collected where a house was being demolished. It has now been two years and all six plants are still alive and doing nicely, what is more they now seem to drink up water like a sponge. But I gave them very little for the first eight months, only watering with an atomizer once a week to wash off the dust settled on the plant.

The distribution of *E. horizonthalonius* is western Texas, southern New Mexico, to Arizona and northern Mexico.

Cactus in Canada

We house most of our cacti in a six-foot square sun room or, as we call it, Cactus Room. This room is fitted with windows that can be opened and also with a heater. A two-foot shelf runs around two sides of the room near the glass

Continued on page 320

THE JOURNEYINGS OF A PENIOCEREUS GREGGII

By MARION MCKITTRICK, *Encinitas, Calif.*

About three years ago I went to see George Barrett, whose account of a cactus hunt we all enjoyed in the first number of the Journal. After buying several specimens from him, when we were ready to leave, he picked up what looked like an enormous sweet potato and gave it to me, saying that it might or might not grow. At that time I did not know much about cactus and the name did not mean anything in particular to me, though I appreciated the gift. I tried for a long while to find out more about my tuber without success. In the meantime I had planted it according to directions and more or less forgotten it.

During a visit to Palm Springs, I happened to see a cactus that was entirely strange to me, growing in the garden of the Desert Inn, and asked about it. It was a Greggii, and I was told of its wonderfully sweet flowers and that it was quite rare. Then I saw tubers smaller but similar to mine. Delighted at what I had found out, in spite of the agony of a backful of spines, which had blown down my neck from a couple of beautiful specimens of *Opuntia basilaris*. We started home and could hardly wait to get there to see if the Greggii had yet shown any signs of life.

I suppose others have had just as much difficulty in finding out the correct names of, or anything about, the various species of cacti to be found around this part of the world. Even now there appears to be little practical information that is of real assistance to the ignorant but enthusiastic student of the thorny horde. The Journal is a great boon, but we need more of them and bigger ones, with lots of pictures and *correct* names attached. I understand that a few people of very capable brain capacity are working on the subject, so we have something to look forward to in the future.

But, back to my *Greggii*. He had been carefully planted in my garden at Rancho Santa Fe, in good company, but when we got home the sand lay flat as ever over him. For about a year there he stayed and did nothing. Later we moved and took most of my cherished plants with us. When I dug him up, he was just the same fat, lazy lump I had put into the ground. Not even a tiny rootlet. Rather disgusted but determined to take him along, I dumped him rather casually among the pots with my other cacti.

Three months later we moved and the *Greggii* was again dumped among the pots to await a setting. It was all of six weeks before I got around to this. In the meantime we had decided to sell our house and then go out to a ranch which we had purchased. Although the tuber annoyed me, I did not want to part with it and laid it on top of the patio wall in the full sunshine. Why I did not pot it like the others, I do not know.

For almost another year my friend lay on the patio wall and I forgot about him in the stress of other things. One day I thought I would take a look at him and decide whether he should go with us or not. He had decided for himself, for there was a little shoot about an inch long, turned up to the sun. We were not to leave for another month or two, so I thought, "well, if you like this air and sunshine mode of living so much, you can stick to it," and put him back on the wall. There was not much growth for a while, so I stood him in a little bed of sand, propped up between two pots in the patio. In a short while the shoot had grown another inch, was robust and one tiny rootlet reached down into the sand.

Once again we moved and the Greggii, now in high favor, was very gingerly taken up and planted in my new garden, in a place that I thought certainly ought to please him. When I took him up there were two small roots and the sprout had grown about six inches tall.

Much as I treasure him, he certainly is a most aggravating fellow. He has not done a thing since I moved him six months ago. He occupies a choice spot in the garden, sitting on a little knoll, sheltered by a sweet blue sage bush, looking out over the most exquisite panorama of the back country.

I can hear some of those who know—"What could anyone expect—dragging a cactus all over the country is not the way to make it grow." But you would be surprised, some of you who know very much more than I do, how well some cacti will grow in spite of being dragged all over the country.

Nest of Cactus Wren in Opuntia fulgida

CACTUS IN CANADA

Continued from page 316

and takes care of our largest plants. Above this and higher are two box shelves six inches deep by twelve inches wide. These shelves are filled with white sand and the pots are buried up to their necks. About every ten days during growing season four quarts of luke-warm water are emptied into these boxes. By watering cacti this way there is not so much rot. About every six days the plants are lightly syringed overhead.

Every morning the room is aired for an hour and then the heat is turned on and kept at 90° or 100°. In very hot weather the room registers 120° with no heat turned on. At night it is allowed to cool down and by morning the temperature is approximately 60°. During the resting period the temperature falls down to 50°.

Although it is not necessary liquid fertilizer is given about every three weeks. We have no trouble propagating as the excess heat makes growth and stops rot.

Under this treatment all our plants obtain a healthy appearance and are free from scale or insects. Such varieties flowered this year which made it more interesting and gave us further encouragement. Our collection is steadily growing and at present we have about two hundred plants.

We also have shelves next to the glass in the basement where we have several varieties of succulents, hardy Opuntias, and Epiphyllums. During the Summer months many plants are distributed through the garden while others are used as house plants which never fail to attract attention. *Herb Fletcher, Jean Webb.*

SECRETARY'S NOTES

PLEASE NOTE! The September meeting of the Society will be held in the Arroyo Seco Branch of the Los Angeles Public Library on Pasadena Avenue, Saturday evening, September 20, at 8 o'clock.

The speaker of the evening will be Mr. Howard E. Gates who will speak on "The Adventures of a Cactus Collector in Lower California." Mr. Gates has had considerable experience in collecting and has some very interesting stories to tell.

Notice is hereby given that at the October meeting a nominating committee of three will be named to nominate officers for the year 1931. Section 1, Article II of the Constitution makes this provision.

The rapid growth of the Society has necessitated the duties of the officers being more closely defined in order to give a maximum of service to our members. Therefore, correspondence dealing with ads, advertising, sale of books, the Society Library or business pertaining to the Journal should be addressed to—

Mr. G. A. Frick,
180 Marengo Street,
Los Angeles, California.

Material for publication should be addressed to the Editor—

Mr. Scott Haselton,
Abbey San Encino,
6162 Pasadena Avenue,
Los Angeles, California.

or to the Assistant Editor—

Mrs. Mary Norwood Lawrence,

Correspondence relating to subscriptions and mem-

376 North Avenue 57,
Los Angeles, California.

berships should be addressed to the Secretary—

Mr. Boyd L. Sloane,
1421 Dominion Avenue,
Pasadena, California.

There has come to our desk a copy of the School Garden Outlook. This little report is published monthly by the Division of Elementary Agriculture of the Los Angeles Public Schools.

The article therein which interests us is the report by Mrs. B. G. Charles of the Cactus and Succulent Club formed by the boys of the Third Street School. Following the posting of a notice reading: "How many boys would like to have a Cactus Club?" seventy-nine boys stopped playing ball long enough to give their answer and to form an organization. This club was "going strong" at the close of school in June and numbered ninety-three members. It has had entries in various shows and staged one of its own at the school. It has studied how to care for cacti and how to propagate them. Conservation was not neglected. Surely, this is a step in the right direction in education and Mrs. Charles deserves much credit for what she has accomplished.

The question comes from one of our foreign members as to the proper fertilizer for use on potted cacti kept in the greenhouse. Also, what can be done to cause opuntias to bloom under similar conditions. Those having experience along these lines are requested to assist in our service by sending in your suggestions to the secretary. (Attention Col. Kewen.)

Knowing that many members are interested in our growth, we report monthly the number of new members whose applications for membership have been approved by the Executive Board. At the August meeting the names of twenty-five were presented. These represented four states and Australia.

Last month we asked whether your local library was a subscriber to the Journal. Following the old adage of "Practice what you preach" we investigated and found that our library was not a subscriber. We are happy to report that it now is. Who else is ready to report?

This clever bit closed a communication from one of our members, "Opuntiously and cereusly yours." Can some succulent fan match that?

BOYD L. SLOANE,
1421 Dominion Avenue, Pasadena, California.

Mail subscriptions to Boyd L. Sloane, 1421 Dominion Ave., Pasadena, Calif. Subscription price $3 per year with or without membership; foreign $3.50.

I enclose herewith $ for one year's dues in the Society and one year's subscription to the *Journal of the Cactus and Succulent Society of America.*